

HSTW Literacy Goals

Literacy Goal 1: All teachers must be committed to getting students to read at least 25 books, or book equivalents, across the curriculum each year.

- Require students to read 10 to 12 books (or equivalents) during the school year and the summer for each English course.
- Develop reading lists for each content area and grade level.
- Discuss what is read with other students in English class frequently.
- Read technical books or manuals to complete CT assignments weekly.
- Expect students to read four or more hours outside of class each week.
- Have teachers in every subject list 10-12 books they have read that other students can read for credit. Require students to complete and turn in some form of assessment/reflection.
- Provide students with motivational books about interesting role models.

Literacy Goal 2: Require a research paper yearly in each class and have the English department take the lead in developing scoring guides.

Literacy Goal 3: Require students to complete writing assignments of one to three pages in all classes at least weekly. Students should:

- Write frequent in-depth explanations about a project or activity.
- Revise writing often to improve quality.
- Use a computer to complete assignments and projects.

Literacy Goal 4: Train all teachers to use reading and writing for learning strategies and apply them in their classrooms.

- Teach students to summarize and take notes, improving reading skills in all content areas.
- Require students to speak and write in complete sentences on all assignments.

Literacy Goal 5: Design all English courses at the college-preparatory level or above and eliminate all other levels.

- Give assignments that require students to use higher-order thinking skills.
- Post examples of challenging questions with expected responses.
- Consistently model the sophisticated vocabulary and sentence structure that students should learn. Respond to students' questions thoughtfully, replicating that which is expected of students.
- Teach students to use graphic organizers.
- Have students generate and test hypotheses in all classes. Students can practice systems analysis, problem solving, historical investigations, experimental inquiry and decision making. Be sure that students can explain their hypotheses and conclusions.

Core Area and CT Recommended Actions/Strategies

Strategies for Language Arts:

- Require students to maintain a writing portfolio throughout their years at CAS. Place only the best examples of their work in the portfolio, ensuring that they redo it until it meets standards. Allow students to add their best writing from all disciplines.
- Make publishing a regular part of the English curriculum. Divide the class into teams, making each responsible for a chapter or section of the book. Organize the class into editors, layout specialists and publishers. Work with other disciplines to make this an integrated project. For example, ask art students to illustrate the book, history students to do research and desktop publishing students to create layouts.
- Have writing competitions within each class. Assign a particular type of writing, allowing students to choose the topic. Divide the class into teams to revise and edit papers. When the process is complete, have each team select the best paper in the group. The next day, invite three teachers or staff into the class to serve as judges. Have student winners from each group read their papers aloud, and then ask the outside judges to select the top paper in the class. Use grant funds to reward the winner with a small gift, and publish the winning entry in the school newspaper or literary magazine.
- Have students write book reviews, and then submit them for publication in the school newspaper or on the school's Web page.
- Require students to write and submit letters to the editors of newspapers and magazines. Give extra credit to students who have their letters published.

Strategies for Mathematics:

- Have students maintain mathematics journals in which they write and demonstrate understanding of content. Have them explain how they worked problems, describe concepts used and discuss why they worked problems the way they did.
- Require students to do a project based on a real-life situation in the community or on their career choice. Work with CT teachers and business representatives to set criteria for projects using mathematics in business and industry. Refer to SREB's Site Development Guide #11, *Using Real-World Projects to Help Students in Education and the Workplace*.
- Have mathematics teachers use the following strategies:
 - * At the beginning of class, pose an authentic, complex, thought-provoking problem that can be solved by applying concepts and procedures being studied.
 - * Allow students to struggle with the problem individually and in groups, giving them time to think about it.
 - * Let the class discuss the problem and suggest various methods to solve it.
 - * Summarize conclusions and explain how the problem can be solved using one or more methods.
 - * At the end of each chapter or unit, ask students to find a problem at a work site, in CT classes, in the community or at home that requires the application of what they have just learned. Ask them to write up the problem, solve it and present it to the entire class.
- Consider implementing a mastery approach to mathematics. (See Resource List.)

Strategies for Science:

- Expect all students to take science their senior year
- Help students learn how science is used in solving real-world problems and develop guidelines for all students in every science course to do an independent, inquiry-based science project. Make projects progressively more demanding each year the student is in high school. The problem should involve identifying an essential question, designing a study, collecting and analyzing data, writing a report then showcasing the project at a school and community science fair.
- Expect students to complete at least one major science lab at least every week or two in all science courses.
- Develop a course syllabus for each science course that aligns with national science content standards. Copies of the *National Science Education Standards* are available from the National Research Council. A second source is *Benchmarks for Science Literacy*, Project 2061, American Association for the Advancement of Science. (See Resource List.)
- Create a science advisory committee of parents, industry representatives and postsecondary instructors to assist teachers in developing meaningful authentic problems.
- Expect students to read at least one science article every week and produce written reports in all science classes. Make professional journals and science magazines available in all science classrooms.

Strategies for Social Studies:

- Develop instructional strategies that include, but are not limited to, integration of technology, oral presentations, debate, cooperative learning, project-based learning, real-world problem solving activities and analysis of primary sources, conflicts and current events.
- Meet with teachers from other disciplines to determine ways to integrate social studies with other academic and CT areas. Some teachers are already doing this, and can take the lead in facilitating integration efforts.
- Use a variety of materials rather than relying on textbooks and commercially-prepared worksheets that require only simple recall of information.
- Create reading lists for each course and require students to read six to eight books per year. For example, *The Longest Day* and *Hiroshima* give first-person accounts of events from World War II.

Strategies for Career/Technical Areas:

- Design all CT programs to national industry skill and certification standards coordinated with state academic standards. Sequence courses in each program to provide for the development of foundational competencies in all aspects of the industry.
- Plan to have all programs and instructors receive industry and national certification, setting target dates for each.
- Integrate technical literacy standards into all CT courses and include them in all course descriptions, course syllabi, and other information that is shared with students and parents. All CT teachers should produce lesson plans that require frequent oral presentations and integrate reading, writing and mathematics.

- Expand student assessments to include comprehensive tests, portfolios, homework and employers' exams.
- Provide CT teachers with staff development on increasing the emphasis on academic skills in their courses and upgrading technical skills, including opportunities to go back to industry for occupational updating.
- Encourage students to take advantage of dual credit opportunities with local colleges.
- Ensure that students are enrolled in CT courses with the primary goal of completing a defined concentration. All students should have a clearly outlined program of study for high school and counselors and administrators should ensure students access to appropriate courses.